

Customer No.: 31561
Application No.: 10/604,981
Docket No.: 9892-US-PA

REMARKS

Present Status of the Application

The drawings are objected because the drawings do not show every feature of the invention specified in the claims. The Office Action rejected presently-pending claims 1, 3, 4, 10. Specifically, the Office Action rejected claims 1, 3, 4, 10 under 35 U.S.C. 112 as being indefinite for failing to particular point out and distinctly claim the subject matter which applicant regards as the invention. The Office Action rejected claims 1, 3, 4, 10 under 35 U.S.C. 102(b), as being anticipated by Kim et al. (U.S. 6,429,909). Applicants have amended claim 1 and cancelled claim 10. After entry of the foregoing amendments, claims 1, 3, 4 remain pending in the present application, and reconsideration of those claims is respectfully requested.

Discussion of Office Action Objections and Rejections

In claim 1, "the pixel electrode, the data line and the source/drain are electrically connected together" is amended as --one of the source and the drain is electrically connected to the data line and the other of the source and the drain, not connected to the data line, is electrically connected to the pixel electrode-- to overcome the objection of the drawings and overcome the rejection of claim 1 under 35 U.S.C.112.

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The limitations added in claim 1 are shown in Fig. 4 and described in paragraph [0029] of the specification.

Applicants respectfully traverse the 102(b) rejection of claims 1, 3, 4 because Kim (U.S. 6,429,909) does not teach every element recited in these claims.

In order to properly anticipate Applicants' claimed invention under 35 U.S.C 102, each and every element of claim in issue must be found, "either expressly or inherently described, in a single prior art reference". "The identical invention must be shown in as complete details as is contained in the claim. Richardson v. Suzuki Motor Co., 868 F. 2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)." See M.P.E.P. 2131, 8th ed., 2001.

The present invention is in general related a pixel structure as claim 1 recites:

Claim 1. A pixel structure formed on a transparent substrate, comprising:
a first conductive layer formed on a transparent substrate, wherein the first conductive layer comprises a scan line and a gate, the gate and the scan line being electrically connected together;
a first dielectric layer formed on the transparent substrate covering the first conductive layer;
a channel layer formed over the first dielectric layer above the gate;
a second conductive layer formed over the first dielectric layer, wherein the second conductive layer comprises a data line, a source and a drain such that the gate, the channel layer, the source and the drain together constitute a thin film transistor, and the data line in the area above the scan line branches out into a plurality of subsidiary lines, *wherein one of the subsidiary lines short-circuited is cut*;
a second dielectric layer formed on the first dielectric layer covering the second conductive layer, wherein *a pair of repair openings is formed in the second dielectric layer to expose the cut subsidiary line*;
a pixel electrode formed over the second dielectric layer, wherein one of the source and the drain is electrically connected to the data line and the other of the source and the drain, not connected to the data line, is electrically connected to the pixel electrode; and

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a thin metallic layer formed on the second dielectric layer between the repair openings and inside the repair openings so that the thin metallic layer is electrically connected to the data line.

Kim does not teach the features of "one of the subsidiary lines short-circuited is cut" and "a thin metallic layer is formed on the second dielectric layer between the repair openings and inside the repair openings so that the thin metallic layer is electrically connected to the data line". In Kim's reference, the structure, as shown in Fig. 17A and Fig. 17B, includes a gate line 100, repair lines 110, 120, a channel layer 300, a source S, a drain D, a data line 400 and a pixel electrode 600. The repair lines 110, 120 are formed under the data line 400, and the data line 400 is divided into two branch lines 410, 420 being connected to the repair lines 110, 120 through the contact hole C5, C6. In addition, the pixel electrode 600 contacts the drain D through the contact hole C4.

Kim fails to teach that one of the subsidiary lines short-circuited is cut and the metallic layer is formed on the second dielectric layer between the repair openings and inside the repair openings so that the thin metallic layer is electrically connected to the data line. Therefore, Kim does not teach every element recited in claim 1.

For at least the foregoing reasons, Applicant respectfully submits that independent claim 1 patently define over the prior art references, and should be allowed. For at least the same reasons, dependent claims 3-4 patently define over the prior art as well.

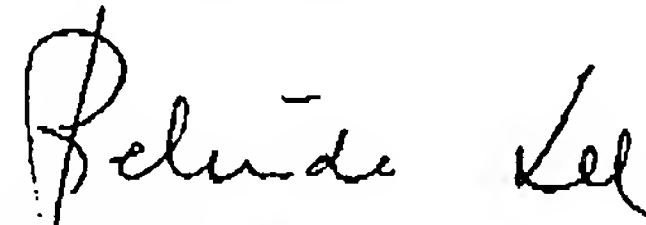
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CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1, 3-4 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,

Date: April 4, 2005



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